

February FAQ - 2008

Radio Interoperability System Frequently Asked Questions:

This documentation is to help answer some of your questions regarding your expectations and goals for the new DuPage County radio communication system.

1. The Emergency Telephone System Board (ETSB) has provided funding for the backbone of an interoperability system, but the oversight of the implementation of this system must be shared between the ETSB, the Steering Committee, the DuPage County Department of Homeland Security, and the municipal stakeholders.

The Steering Committee agrees and looks forward to working with all the agencies in DuPage County to make this the best communication system possible.

2. Use and benefits of the interoperable network by the Fire Service to cover handling of the national Mutual Aid Box Alarm System (MABAS) should be speedily addressed.

The Steering Committee and Motorola are working with the MABAS organization to discuss multiple ways to interface into their system from our Trunking radio technologies. Some of those VHF/800MHz interfaces include:

- a. Computer links with Gateway technologies like Motobridge.
- b. Basestation interfaces at each site to connect MABAS with DuPage.
- c. System to System connections at the Master Site.

All these options are available with the new DuPage radio system and will need to be discussed with the radio steering committee.

3. Adequate, qualified staff must be dedicated to support this project.

The DuPage ETSB board has developed a cross functional team that is helping steer the direction of the radio system. Motorola has assigned two experienced engineers to this project along with a project manager in Danielle Godar.

4. Regular, detailed reports on project progress must be provided to stakeholders.

The Steering committee has coordinated weekly conference calls with updates, next steps, time frames, and a responsibility matrix to make everyone accountable.

5. All future system and hardware purchases will be made through a competitive bidding process that allows all vendors to compete equally for such purchases. ETSB and municipal stakeholders should be making equipment choices that will be expected to last for ten years.

There are many non-critical components to this system that are standard based equipment and can be bid out. Equipment such as furniture, computer hardware, towers, generators, UPS, that can be provided by multiple vendors. On mission critical components that affect the core radio system Motorola would recommend you purchase from Motorola or from one of our authorized dealers since these types of items can affect warranty and the performance of the radio system.

6. Municipal stakeholders must have significant, detailed notice of need for future purchases in order to include them in the local budget cycle. Municipalities should be informed of the timeline for development of the interoperable system, including (portables, consoles, etc.) for replacement.

Radio Infrastructure Timeline

The current target date for final radio system acceptance is Fall of 2010. Agencies are encouraged to start budgeting for portables and mobiles now, plus look at their PSAP console connection.

Agency Console Timeline

Motorola recommends agencies to migrate to the MCC7500 IP console to handle your current VHF/UHF/800 MHz frequencies, plus the capability of operating in the Digital TDMA trunking mode. Due to multiple variables in quoting consoles we are going to survey the PSAP's in DuPage County to give each agency a budgetary quote. Currently, Motorola's MCC7500 IP console is the only certified radio console to connect into the ASTRO TDMA radio network.

Portable and mobile recommendation

Motorola's next generation 800MHz TDMA radio will be available for purchase in Q3 of 2008, with delivery in Q2 of 2009. The budgetary pricing for the next generation radio with accessories is \$5,700.00

Since the radio infrastructure will not be ready until fall of 2010 we would recommend the agencies to continue to use their current radio system for two more years and start budgeting for the new system in 2010.

7. The system developed for DuPage municipalities must be fully compliant with the Telecommunications Industry (TIA) Project 25 standards documentations and compatible for future technology upgrade, including specification for two slot Time Division Multiple Access (TDMA).

Motorola proposed its ASTRO 25 FDMA/TDMA P25 system. Motorola will comply with a later P25 Phase 2 technology by upgrading your radio system infrastructure via software if you so desired. The next generation subscriber equipment will also be software upgradeable to Phase 2.

8. The interoperable system must be capable of integration with all existing systems, equipment or hardware currently in use by any public safety agency in DuPage County.

Multiple technologies can accomplish this goal by gateway links that could integrate all existing systems. This solution will need to be discussed with the Steering committee as it can affect the capacity of the 800MHz radio system.

9. The system must have national interoperability. It must support communications with any system in the County, the region, the State, or the Country.

The radio system is an APCO Phase I P25 Standards base system that will be interoperable with any other P25 system including the State of Illinois STARCOM21 radio system. Interoperability beyond local and regional users is achieved by the use of nationwide interoperability frequencies. Region 54 in cooperation with the Illinois Tollway System and Cook County and several other agencies, are in the process of installing repeaters in the Chicagoland area that will allow users from other parts of the country to communicate with the region.

10. The ETSB must remain cognizant of the financial limitations of local governments, and will explore and pursue alternative funding sources whenever possible.

The DuPage ETSB is assuming responsibility for fully funding the radio infrastructure (antenna, transmission and receiving equipment, TDMA software). Individual agencies will be responsible for consoles and mobile and portable radios.

The DuPage ETSB worked with DuPage Mayors and Managers to obtain a PSIC grant for \$2,350,000. Each participating agency will be able to use these funds on a pro rata basis to fund 700/800 MHz radio equipment for use on the

network. Leasing packages can also be provided by equipment vendors if an agency is interested in loans. The Steering Committee will explore and evaluate joint purchasing of radio equipment in 2009.

11. Municipal stakeholders should understand the cost if Fire, Emergency, and Public Works operation are not included in the interoperable network.

Any agency that continues to use its existing radio network will be responsible to maintain it. Agencies that convert their entire use to the 700/800MHz network will be able to eliminate local antenna, receivers, transmitters, etc.

12. Municipal stakeholders need to understand any capacity restrictions on entry to the interoperable network, including charges for entry at any point in development of the system.

The current contract for the radio network will accommodate 1,000 users in Phase I and is expandable to 6,000 users. The ETSB has earmarked funds to pay for future phases. The Steering Committee is evaluating the staging of expansion beyond the first 1,000 users. It is important to indicate your interest in joining the radio network and specifically when you plan to purchase equipment to allow you to use the network.